

**AMENDMENT TO THE CLAIMS**

Please amend the claims as follows:

1. (Currently Amended) A method for facilitating communications between components of a distributed application comprising the steps of:  
receiving a request by a middleware program from a first distributed application component, wherein ~~a recipient of said request is~~ a second distributed application component is identified in said request as a recipient of said request; [[and]]  
identifying by the middleware program a publish/subscribe topic by identifying a first property of said second distributed application component;  
sending the request by the middleware program to a publisher associated with the first publish/subscribe topic; and  
publishing by the publisher said request on ~~[[a]]~~ the first publish/subscribe request topic, ~~wherein said first publish/subscribe topic is identified by a first property of said second distributed application component~~  
wherein the distributed application, the middleware program, the publisher and the publish/subscribe topic, are embodied in communicating computing devices.
2. (Original) The method of claim 1, wherein said first property is a type of said second distributed application component.
3. (Original) The method of claim 2, wherein said recipient is identified by a second property of said second distributed application component included within said request.
4. (Original) The method of claim 3, wherein said second property is a unique identifier of said second distributed application component.

5. (Currently Amended) The method of claim 2, further comprising the steps of:
- subscribing by the middleware program to a first publish/subscribe reply topic, wherein said first publish/subscribe reply topic is identified by a type of said first distributed application component;
- forwarding by the middleware program a reply posted on said first publish/subscribe reply topic to said first distributed application component.
6. (Original) The method of claim 5, wherein said reply is generated by said second distributed application component in response to said request.
7. (Currently Amended) The method of claim 1, further comprising the steps of:
- subscribing by the middleware program to a second publish/subscribe request topic, wherein said second publish/subscribe request topic is identified by a type of said first distributed application component;
- forwarding by the middleware program a request posted on said second publish/subscribe request topic to said first distributed application component, wherein said request is generated by a third distributed application component;
- receiving by the middleware program a reply from said first distributed application component, wherein a recipient of said reply is said third distributed application component; and
- publishing by the middleware program said reply on a second publish/subscribe reply topic, wherein said second publish/subscribe reply topic is identified by a type of said third distributed application component.
8. (Currently Amended) The method of claim 7, wherein said second and third distributed application components are the same distributed application component.

9. (Currently Amended) The method of claim 7, further comprising the step of, prior to forwarding said request posted on said second publish/subscribe request topic, identifying by the middleware program that a recipient of said request posted on said second publish/subscribe request topic is either said first distributed application component or all distributed application components.
10. (Currently Amended) The method of claim 7, further comprising the step of, sending by the middleware program a callback object to said first distributed application component with said request posted on said second publish/subscribe request topic.
11. (Currently Amended) The method of claim 1, further comprising the step of, registering by the middleware program said first distributed application component prior to receiving said request, wherein said step of registering comprises:  
receiving by the middleware program a type of said first distributed application component, a name of said first distributed application component, a list of all other types of distributed application components that will be sending or receiving send request requests or replies to/from said first distributed application component, ~~and a list of all other types of distributed application components that will be receiving requests or replies from said first distributed application component.~~
12. (Currently Amended) The method of claim 11, wherein said step of registering further comprises:  
receiving by the middleware program a callback object, wherein said callback object directs requests from other distributed application components to said first distributed application component.
13. (Currently Amended) The method of claim 12, further comprising the step of,

invoking by the middleware program said callback object to deliver said request to said first distributed application component.

14. (Currently Amended) The method of claim 11, wherein said step of registering further comprises:

sending by the middleware program a callback object to said first distributed application component.

15. (Currently Amended) The method of claim 11, wherein said step of registering further comprises:

creating by the middleware program a publisher [[on]] for a publish/subscribe request topic of each of said other type of distributed application component receiving a request from said first distributed application component;

creating by the middleware program a publisher [[on]] for a publish/subscribe reply topic of each of said other type of distributed application component types receiving a reply from said first distributed application component;

creating by the middleware program a subscription [[on]] for a publish/subscribe request topic of said type of said first distributed application component; and

creating by the middleware program a subscription [[on]] for a publish/subscribe reply topic of said type of said first distributed application component.

16. (Currently Amended) The method of claim 15, wherein said subscription [[on]] for a publish/subscribe request topic of said type of said first distributed application component includes a filter that only accepts requests addressed to said first distributed application component or all distributed application components.

17. (Currently Amended) The method of claim 15, wherein said subscription [[on]] for a publish/subscribe reply topic of said type of said first distributed application component includes a filter that only accepts replies addressed to said first distributed application component.

18. (Original) The method of claim 1, wherein said request comprises one or more instructions directed toward a task to be performed by said second distributed application component.
19. (Cancelled)
20. (Cancelled)
21. (Cancelled)
22. (Cancelled)
23. (Cancelled)
24. (Cancelled)
25. (Cancelled)
26. (New) The method of claim 1, wherein the middleware program is a middleware wrapper.
27. (New) A computer system for communicating messages between components of a distributed application, the computer system comprising a plurality of communicating computing devices embodied with computer logic that:  
receives a message formulated according to request/reply semantics from a first distributed application component, wherein the message identifies a second distributed application component; and in response to receiving the message:  
publishes the message to a publish/subscribe topic identified based on a property of the second distributed application component.

28. (New) The computer system of claim 27, wherein said message is a request or reply.
29. (New) A method of communicating messages between components of a distributed application, the method implemented in a computer system comprising a plurality of communicating computing devices, the method comprising:
- receiving in the computer system a message formulated according to request/reply semantics from a first distributed application component, wherein the message identifies a second distributed application component; and in response to receiving the message:
  - publishing in the computer system the message to a publish/subscribe topic identified based on a property of the second distributed application component.
30. (New) The method of claim 29, wherein said message is a request or reply.